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ABSTRACT

A description is given of a distance education program designed to up-grade and complete the education of teachers in Egypt, the majority of whom have not completed their education through the university level. Television and other audio-visual aids are used as communication media. Educational programs are televised daily to these teachers. Though educational technology has proved to be extremely useful, these advanced electronic equipment and developed audio-visual aids are not considered substitutes for the human teacher. Therefore, meetings with university professors and lecturers in regional study centers for discussions on different subject matters are a part of the program. A model of self-training activities is included and conducted in different study centers located in critical geographic sites. After practicing the model activities, the teachers' initial passivity and indifference have changed to active participation, and they have become involved and highly interested in the activities. Evaluation of these activities shows the outcome of feedback and indicates changes in the teachers' role conception. (JD)

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**" Distance Teaching And Learning:
A Case Study"**

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Distance Teaching and Learning:

A National Case Study

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Abstract

Regarding the teacher as the factor of change in a rapid changing dynamic world, there has been a tendency to regard continuous developments of inservice teachers as a matter of great importance for community development.

For this reason, some Universities in collaboration with Ministry of Education in Egypt established a sort of an Open University whose objective is continuing professional training of inservice teachers in primary schools scattered in various separated cities. To achieve this aim, technology is applied to solve this educational problem using distance teaching and learning.

140 thousands of inservice teachers have been enrolled in this vast 4 Years Program. The teacher who finishes the course successfully obtains a University degree in Education. Television is used as a communication media. Daily educational programs in television are directed to those teachers. In addition, another audio-visual aids are used. Though educational technology has proved to be extremely useful, these advanced electronic equipments and developed audio - visual aids which are used are not substitutes for the human teacher. So, meetings with University professors and lecturers in regional study centers for discussions on different subject matters are valuable.

The academic year constitutes three terms, four months each, except the summer term is only two months devoted to practical sessions in various fields (such as agriculture, commerce, industry, etc.), science laboratories and Art education. The credit hour system is applied.

Details of the study and qualifications for eligibility are mentioned.

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" Distance Teaching And Learning:
A Case Study"

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Introduction:

Due to uprising problems of development following rapid social and technological changes, there is an urgent need for better education. Recently, developing countries have become aware of the impact of educational growth on improving productivity in various fields. Education is charged with a major responsibility to prepare highly-trained manpower to meet the nation's immediate and future needs.

Better education necessitates an abundance of well-trained teachers. Unfortunately, Egypt is facing the serious problem of a rapidly increasing population. Consequently, it is followed by an intense pressure of an endless increasing number of school admissions beyond school capacities. Meantime, the majority of primary school teachers are nongraduates.

Public dissatisfaction and parents' complaints about the quality and the low standard of teaching in primary schools, especially in highly-crowded classrooms, have been reported. Educators and Ministry of Education recognized this pressing problem and the urgent need for improving the standard of teaching in schools, and for developing suitable strategies to achieve the required objectives .

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Related to these major problems in the teaching profession in Egypt is the apparent disparity between graduates and nongraduates among inservice teachers. Nongraduates are concerned with teaching in primary schools which accept pupils from six years old to twelve years old. Two models of nongraduate teachers exist. Both have obtained the General Diploma of Teachers.

Student teachers of the first model take a five-year course after finishing the preparatory school stage.* Teachers of the second model take only a two-year course after finishing the secondary school stage. Graduates are those teachers who hold a university degree and sometimes higher diplomas in education. Therefore, they teach either in preparatory schools or secondary schools.

Considering the teacher as an indispensable agent of change in a dynamic, rapidly changing world, this type of nongraduate teachers and the lack of skill in teaching efficiency, especially in crowded classrooms, do not fit the information age and the great scientific and technological changes.

* The Egyptian system of education consists of the following stages:

1-	Nursery school	:	from	4	to	6	years old.
2-	Primary school	:	"	6	to	12	" "
3-	Preparatory school	:	"	12	to	15	" "
4-	Secondary school	:	"	15	to	18	" "
5-	University level	:	"	18	to	22	" "

Educators are now convinced that the time is ripe for a radical change aiming at the integration of the teaching profession. In other words, the whole teaching profession should be a graduate profession, thus, eliminating the present disparity or differences. This could be achieved by the continuous learning of inservice nongraduate teachers until they reach the university level.

Realizing the actual dimensions and the various aspects of these problems, a realistic solution should be worked out. A new and innovative training program is to be properly organized in order to enable nongraduates to continue their training up to the university level. Meantime, they should keep on teaching at their primary schools, so as to avoid any shortage of teachers at this stage of the educational system.

For this reason, educators in the universities in collaboration with the Ministry of Education and the National Centre of Educational Research have organized an innovated program for inservice teachers. This program is the topic of the present study.

Goals and objectives:

The program aims at improving the academic and professional level of inservice teachers of primary schools up to the university level. To achieve this goal the following objectives should be fulfilled:

- I- The development of the inservice teacher's ability to do his functions successfully as a "class teacher" for the first four years, or as a "subject-matter" teacher for the 5th and 6th years of this educational stage; in addition to his participation in the general educational activities and the administrative aspects of the school.

- 2- The development of the trainee's ability to play his role effectively in developing education in society as a whole and improving the teaching profession.
- 3- The development of the trainee's ability to play an effective role in changing his environment and society.

Qualifications for eligibility:

The program accepts, in its first stage, inservice teachers and employees of the educational administrations who obtained the " General Diploma of Teachers", which is a non-graduate level: either the five-year model after finishing the preparatory stage, or the two-year model after finishing the secondary school stage. Both sexes are admitted into the program.

The General plan of the program:

The program is based upon a four-year course, noting that a university year consists of thirty weeks. Every year includes three terms, the duration of each one is four months except the last one, which is a summer term that lasts two months only and is devoted to practical sessions in various fields, such as agriculture, commerce, industry, home economy, science and art education. The credit hour system has been applied.

The program includes two types of courses:

Type I: General courses for all participants whose purpose is to improve the functioning of the teacher of the first four years of the primary stage, and to enrich him by the basic cultural knowledge; in addition to educational and psychological courses accompanied by the essential training necessary for updating the primary teacher.

Type II : Specialization courses to prepare the teacher for teaching higher classes of the primary stage, i.e., 5th and 6th years . These courses enable the teacher to gain more insight in his subject-matter and to be more competent in teaching it. Specialization starts in the second year of the training course. The participant has to choose one of the following main groups of specialization:

- A) Arabic language, religious education and social sciences.
- B) Mathematics and science.

The teacher who finishes the four-year course successfully obtains a university degree in education, "primary Education".

Implementation:

140 thousands of inservice teachers are legible for this study. But, due to financial limitations and the available funds, only a certain number of those teachers can be enrolled in the program every year. Simultaneously, continuous efforts are exerted to increase the study centers until they suffice the total number of teachers. To ensure the least possible expenses, all physical resources and facilities of schools have been utilized to establish these centers. The physical resources include school buildings, science laboratories, equipments, audio-visual aids, etc. Even human resources have been recruited for the service of the program.

Each center accepts only five hundred participants every year. The number of centers varies in each city according to the density of population and the human resources in the university, or universities, of that city. Cairo, for example, has 13 centers, while Alexandria has only two centers.

The program commenced in the previous year 1983/1984, as an experimental stage, only in Cairo under the supervision of the faculty of education, Ein-Shams University. Thirteen centers were utilized for training seven thousands of participants. Other universities realized the vital importance of the program for improving the teaching profession and the community. Consequently, the program has been generalized this year, 1984/1985, to cover seven cities in Egypt. Accordingly, new centers have been established. Thus, the total number of centers became twenty five, and the registered inservice teachers in the program increased up to sixteen thousands and three hundred.

The universities which share this year in the program are the following: Ein-Shams (in Cairo), Helwan (in Cairo), Alexandria, El-Manssoura, Tanta, Zagazeeg, Demyat, and Asyut. Next September 1985, another three universities will take part in the program: Cairo university (its branch in Al-Fayyum city), El-Menofeya University, and Al-Minya University. Thus, the expected number of participants will be twenty seven thousands of inservice teachers and the study centers will be twenty nine centers, supervised by eleven universities. The director of the center is a university professor who is responsible for all the activities related to the program, cooperating with him a technical and administrative personnel.

The study centers are geographically distributed so as to cover certain educational administrations, taking into consideration that every meeting center is an integrated educational unit containing the various educational activities; including consultations, audio-visual aids, laboratories, workshops, etc.

Taking into consideration that the program is a kind of open university that is not restricted to a certain city or region, and whose function spreads all over the nation, the program is based on distance teaching and self-learning. To achieve this aim, multimedia are utilized to convey knowledge to inservice teachers in various separated cities at the same time. Lectures on various subject-matters are directed to participants via television program, broadcastings, videotapes, radio cassette tapes, various audio-visual aids, and books.

Though educational technology has proved to be extremely fruitful, these advanced equipments and developed audio-visual aids which are actually used are not to be substitutes for the human teacher. So, meetings with university staff members in regional study centers are valuable.

Arbitrary part-time attendance is allowed for the participants to meet the university staff members for four hours daily in evening classes at the regional centers. University professors and lecturers of different specializations in subject-matters, methods of teaching, educational and behavioral sciences share these activities according to an organized time-table.

During these meetings the participants may find answers for their questions on various points of the curriculum. They may get explanations about the goals of the program and how to get the maximum benefit from distance teaching and self-learning. They may also discuss any problems concerning the program and present suggestions for practical solutions. They may need interpretations concerning the impact of this program on their future in the teaching profession.

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The system of supervision:

The plan of supervision consists of several kinds of boards and committees with different functions.

I. Higher supervisory board:

It is comprised of the Minister of education, his deputies, all the deans of faculties of education who take part in the program, and the director or the representative consultants of the National Center of Educational Research. The Function of this board is mainly executive : supervising, evaluating of implementation, and taking decisions concerning the measures to be taken as a result of continuous evaluation.

2. Higher committee of academic consultants:

It is comprised of university professors of various specializations needed in the training course. The committee takes decisions concerning academic issues, curriculum, examinations, etc. It selects authors for textbooks to be written especially for the program; it solves problems relevant to the examinations, etc.

3. Regional technical committee:

It is headed by the dean of the faculty of education, under whose supervision all the educational activities in the study centers are carried out. This includes the selection of directors for the centers; the staff members who participate in the meetings with the trainees ; the administrative and technical personnel, who cooperate with the director of the center. The committee members

include the minister's regional deputy and a professor selected by the dean. The committee is aided by administrative personnel.

Courses of the program:

Courses of the first year include:

- A. General courses for all participants: Religious studies, literature, linguistics, history of mathematics, statistics, general mathematics, environmental sciences, general geography, developmental psychology.
- B. Optional courses: the participant chooses only one course from each of the following two groups:
 - (1) Cultural courses; include environmental studies, developmental sociology, community and society, and English language.
 - (2) Practical fields; include commercial, agricultural, and industrial fields, in addition to home economics.

The previous courses are distributed on the three terms of the year.

Specialization:

In the first year, the study is general for all participants. Specialization starts in the second year. Only two broad specializations are provided. The successful participant in the first year has to attend one of the following sections according to his desire:

- A. Arts section includes Arabic language, religious edu-

cation, social sciences, modern Arab history, Ancient Egypt, political geography, economic geography, survey and maps.

- B. Mathematics and science section includes the following courses: Algebra, geometry, differentiation and integration, physics, chemistry, biology; in addition to practical courses in science.

Both specializations include educational psychology, teaching profession, and modern trends of curriculum planning and development.

Educational Media:

An essential feature of the program's plan is improving education through the application of educational media and the use of technology. To make distance teaching effective and learning easier, various channels for acquiring useful information are provided through an integrated system of educational media and technology including the following:

- I. Television programs specially prepared for this educational purpose. These programs focus on areas or topics that need special presentation and demonstrations through charts, scientific films and real scenes from the environment or the society, etc. These television programs are extremely valuable to demonstrate complex theories and fundamental concepts.
2. Broadcasting programs are also prepared for the areas of the curriculum which do not necessarily need visual presentation.

3. Textbooks, Periodicals and other publications that the participant may need.
4. Meeting centers, i.e. study centers where the participants practice four activities, including:
 - (a) Consultations concerning explanations of complicated parts of the curriculum, analysis of critical issues and problem solving through meetings and discussions with university staff members. Study centers organize meeting sessions in appropriate timing so as not to disturb the original work of teachers at schools. While meetings are arbitrary during the first and second terms, attendance is obligatory in the summer term which is devoted to practical sessions. Practical activities necessitates supervision of university staff members on the participants performance.
 - (b) Science laboratories provided in each center are utilized for experimentation in various branches of science; chemistry, physics, biology, etc.
 - (c) Workshops for training of participants in various practical fields; such as agriculture, industry, commerce, home economic, etc.
 - (d) The use of educational technology devices for promoting learning in a more vivid way, including: video cassettes, tape recorders, and computers according to participants' needs.

Examinations:

Examinations held at the end of each term are based upon multiple choice tests. Three equivalent forms for

each test are provided. Every participant has to answer only one form of the test (A,B or C form) Tests are administered in all centers at the same time. Academic achievement is estimated with respect to all subject-matters at the end of the first term. Analysis of results and comparison between various subjects disclosed the relatively low level of achievement in mathematics as a common feature in all study centers of different cities.

A model for self- learning:

The participants are full-time inservice teachers. Their previous preparation for the teaching profession was of a traditional style based on a series of lectures to explain and clarify the topics of some standardized textbooks. This stage of preparation is usually followed by some sessions of practical teaching. This approach of preservice teachers preparation has proved to be ineffective in training the updated teachers we need nowadays. The updated teacher that fits recent goals and objectives of education should be an able, well-informed and competent person. He is an effective agent of change in society and the world for the welfare of humanity.

A new concept of the role of the teacher today focuses on modernization, up-to-date information, making use of advanced educational technology, innovated ways of self-learning, continuous learning and professional development. To realize this role, high quality teacher training is inevitable. This is possible when sufficient financial resources are available. In case of shortage of the required funds, new effective training programs that cost the least possible resources could be innovated. As an example, a model of self-learning has been designed and applied by the author in the training centers of Alexandria when the second term commenced.

This method is based on the participants efforts and cooperation. Being encouraged and given broad guidelines of the procedure and clarification of the aims of this new activity, they became highly motivated to create an exciting learning environment. Before involving the participants in the new activity of self-learning, they were asked to answer freely and frankly a list of questions about their training program and the teaching profession as a whole and their expectations of both. For example, in order to detect participants' attitudes towards the teaching profession, they were asked if they would prefer an alternate vocational choice to the educational career, noting that both vocations are financially equivalent. The majority of participants are against withdrawal from the teaching profession. They would prefer an alternate vocation only in one case; if it offers a higher income.

They were encouraged to criticize and to suggest possible solutions for the problems and the obstacles facing them. Their answers, criticism and evaluation, which are based on their actual experience during the first term of the program, are studied carefully. This study is followed by a broad discussion among participants and the author. This fruitful discussion provides the opportunity to explore their needs; mainly interpretations concerning textbooks, curriculum, examinations, their future in the profession after finishing successfully this four-year program, and their rights for higher studies, etc. They demand more lectures and meetings with university staff members.

After clarifying all these points, within a warm, friendly atmosphere of discussion full of authenticity and mutual respect, they become convinced and get the feeling that the training program belongs to them; they are the owners of the program, and its success reflects mainly on them.

Participants are classified in small groups of five members each, according to their interests and excellence in subject-matters. Group members prepare to lecture on one of the texts or topics; taking into consideration that they are going to take part in discussions with other participants. Successively, every week, other groups do the same thing on different subject matters.

Self-reliance in this learning activity ensures that the participants get feedback from each other. Involvement of participants in working out solutions in organic groups reduced their frustrations and feelings of alienation. This results in the emergence of a tremendous enthusiasm to bear the responsibility of carrying out activities that enrich their knowledge, improve their skills and develop their profession.

They have become aware of their rights in decision making, taking part in educational research and even in educational planning. They are no more isolated from the educational system. They have acquired a new role, deeper understanding and a new spirit of change.

Evaluation:

Continuous evaluations of implementation are done regularly every month by the higher Supervisory Board. It is based upon criticisms reported by regional subject-matter consultants and staff members. Evaluations of the trainees themselves are important and valuable .

How do participants perceive the program?
The initial perception of participants during the first term was a traditional one and so passive. They perceived

their role in the program as a matter of mere attending of meetings at the centers to hear the lectures given by the university staff members. Consequently, the absence of one, or more, lecturer, due to any occasion may cause dissatisfaction and disappointment among the participants.

The trainees have been encouraged to use their inner potentialities and field experiences. Their initiations for new effective ways of self-learning and suggestions to overcome obstacles confronting the program are highly appreciated. Group members are motivated to work as a team; taking part in mutual discussions about any problems in the curriculum and sharing criticism of topics presented in their textbooks. This encouragement and appreciation for initiative results in motivating the trainees to engage, with confidence, in decision-making concerning self-learning, and in providing the most enthusiastic atmosphere for bearing the responsibility of self-learning, self-evaluation and self-development in the teaching profession.

The most important result is the change that occurred in the participants' perception of the program's function and the teaching profession. Their perception became more accurate and realistic. Their insight into the problems facing them in the career of teaching became deeper. These activities which are based on spontaneity, initiative, mutual respect and appreciation, empathy, warmth, and frequent self-evaluations help in exploring one's talents, aptitudes and deficiencies; thus gaining self-insight and a more objective self-concept. Certainly, these valuable changes have effective reflections on the teacher's personality, as well as, on his competency in teaching.

Discussion:

What concerns us is the performance of the teacher in the learning situation. The model of self-learning aims at improving the teacher's performance. How can the application of the model aid the teacher's personal development and acquisition of teaching skill?

Inservice teachers' training could be conceived as a process of role change. According to the role theory, a "role" is a structured mode of participation in social life. It is what society expects of an individual occupying a given position in a group.⁽¹⁾ Concerning the teacher, he may define his role in a way that contradicts what society expects of him.

His different conception of a teacher's role leads to unsatisfactory performance. Favourable changes may occur in his role conception as a result of the activities provided by the model of self-learning. This change is possible only if the training program succeeds in creating an environment that facilitates communication and mutual reactions among peers. An environment that provides opportunities for sharing analysis of their profession's function, helps group members to find out solutions for problems facing them, enables them to evaluate their own performance, and allows the participants to benefit from the subsequent feedback by presenting suggestions for possible modifications that ensure achievement of the desired objectives.

These activities may produce motivation, satisfaction of needs, changes of attitudes towards teaching profession, and changes of perception. All these changes

jointly may cause a profound change in the teacher's role conception. Thus, he redefines his role in a new way. For example, his previous conception of successful teaching as a matter of rote learning, heavy duties, strict drills and severe punishment may be changed to be a matter of providing opportunities to encourage initiative, spontaneity, originality and solving problems.

Favourable changes lead to role acceptance which, in turn, modifies role performance. Modification of role performance affects the social system. But the degree of modification varies due to variations in personality patterns. No doubt, teachers vary in intellectual capacities, values, needs, dispositions and temperament. Therefore, a "personal range of variability" is expected. G. Allport states: "Within this range, activity varies according to the press of culture, of situation, and of role."

Conclusion:

Accordingly, a proper planning of distance teaching and learning program for inservice teachers should provide flexible learning situation; permissive climate of activities, stimulation of motivation. Simultaneously, educational multi-media should be available to enrich teachers' knowledge, and deepens their understanding of the factors that improve their teaching profession and that influence cultural and social changes in society.

This approach allows for a wide range of variability. This does not contradict the persistent efforts of the individual during his endless attempts at social re-adjustment to retain his own personality system intact.

Finally, it should be noted that, excluding Ein-shams University who has started one year earlier, this four-year program is in its very first year. Just the first two terms of the first year are finished, while the third term, i.e. the summer course, is still running on. Taking that into consideration, the preliminary evaluation of the program as a whole revealed the need for the following:

1. More financial support to provide physical and human resources in order to fulfill the objectives of the program.
2. Establishing more study centers to meet the increasing demands for admission in the training program which has gained a great appeal among inservice teachers of primary schools.
3. Increasing the number of the television educational programs presented to inservice teachers participating in the programs.
4. Revision and reappraisal of the present textbooks, taking into consideration the criticism reported by staff members as well as by the participants themselves.
5. Diminishing the total number of credit hours required for the program.
6. Giving more attention and care for teaching mathematics.
7. Establishing a bank of questions for designing and constructing new alternatives and equivalent forms of tests for all subjects in different fields of specialization.
8. Substantial provision of advanced educational equipments and computer technology; in addition to the essential training for acquiring the ability to cope effectively

with the vast amounts of information in this age. .

Summary:

Regarding the teacher as the factor of change in a dynamic, rapidly-changing world, there has been a tendency to regard continuous development of inservice teachers as a matter of great importance for community development. For this reason, some Universities in collaboration with the Ministry of Education in Egypt established a sort of an Open University whose objective is continuing professional training of inservice teachers in primary schools scattered in various separated cities. To achieve this aim, technology is applied to solve this educational problem using distance teaching and learning.

This innovated four-year program has been organized mainly for updating and upgrading 140 thousands of inservice nongraduate teachers up to the university level. Only some of them are accepted for admission every year according to the potentialities of the program. Television is used as a communication media. Daily educational programs in television are directed to these teachers. In addition, another audio-visual aids are used. Though educational technology has proved to be extremely useful, these advanced electronic equipments and developed audio-visual aids, which are being used, are not substitutes for the human teacher. So, meetings with University professors and lecturers in regional study centers for discussions on different subject matters are of great value.

Besides, a model of self-training activities has been organized and conducted in Alexandria study centers as an experimental stage. After practicing the new model activities, the teachers initial passivity and indifference have changed to active participation, and they have become involved and highly interested in the activities. Evaluation of

these activities show the outcome of feedback and indicates drastic changes in the teachers' role conception of the teaching profession. Consequently, this is followed by favourable changes in role performance.

Finally, overall evaluation of distance teaching and learning, although still needs more financial support to provide more physical and human resources, has proved to be a successful and fruitful way for improving the teaching profession.

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